

COMMENTS

REVISION ~~32~~ DRAFT ENGINEERING EVALUATION/COST ANALYSIS WORK PLAN AVERY LANDING SITE, AVERY, IDAHO

(~~5 January 2009~~20 November 2008)

General Comments

1. The work plan is a document wherein the Respondent describes its proposed technical approach for completing the requirements of the SOW. It is not a document intended for statements about legal liability issues. Thus, the following revisions must be made:

- Page 4, section 2.2.2.2. Eliminate this entire section.

~~10/27/08 Revision 2 Comment~~ Comment partially addressed. Respondent should clarify (1) whether any petroleum contaminated soils or other hazardous wastes were identified and disposed of incidental to removal of the rail lines in Section 15 and 16 and the 500,000 gallon aboveground storage tank in Section 15, and (2) whether the cabin and trailer sites are on individual septic tanks or a community septic system.

~~12/09/08 Revision 3 Comment~~ addressed.

- Page 4, section 2.3, 1st paragraph. Eliminate the second sentence, and note that the Federal Highway Administration is not known to own portions of the Site.

~~10/27/08 Revision 2 Comment~~ not addressed. The second paragraph should be revised to note that ownership remains uncertain regarding the Federal Highway Administration and/or the US Forest Service.

~~12/09/08 Revision 3 Comment~~ addressed.

- Page 12, section 4.2.1. Revise the first sentence to "Soils have been impacted from releases of contamination at the Site."

~~10/27/08 Revision 2 Comment~~ partially addressed. Figure 4-1 shows railroad spurs and numerous other structures present in Section 16. Thus, the sixth sentence should be revised to note that "several railroad spurs and other structures existed in the past."

~~12/09/08 Revision 3 Comment~~ addressed.

- Page 19, section 4.6.3. Delete the third sentence in the second paragraph.

~~10/27/08 Revision 2 Comment~~ not addressed. The subject sentence was not deleted.

~~12/09/08 Revision 3 Comment~~ addressed.

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Specific Comments

12. Page 5, Section 2.2.3, 3rd bullet statement. Delete the second sentence, which is taken out of context from the cited document, and replace with the following sentence: "The site data showed the presence of organic and inorganic hazardous substances, particularly polycyclic aromatic hydrocarbon compounds in subsurface soils and groundwater." The investigation was conducted to determine the Site's Hazard Ranking System (HRS) score, and the information collected to develop HRS scores is not sufficient to determine either the extent of contamination or the appropriate response for a particular site.

Comment 10/27/08 Revision Comment 2 partially addressed. Delete the 3rd sentence, and make the 4th sentence the beginning of a separate bullet statement.

12/09/08 Revision Comment 3 addressed.

4.17 Page 6, section 2.5. Add the 2007 E&E Removal Assessment Report to this section and to Section 8.0.

10/27/08 Revision Comment 2 not addressed. The citations are:

- Ecology and Environment, Inc. (E & E), April 10, 2007, *Avery Landing Site Site-Specific Sampling Plan*, prepared for the U.S. Environmental Protection Agency, Contract Number EP-S7-06-02, TDD 07-03-0004, Seattle, Washington.

- Ecology and Environment, Inc. (E & E), July 31, 2007, *Avery Landing Site Removal Assessment Report*, prepared for the U.S. Environmental Protection Agency, Contract Number EP-S7-06-02, TDD 07-03-0004, Seattle, Washington.

12/09/08 Revision 3 Comment addressed.

19. Page 8, section 2.6.3, 1st paragraph. Indicate how much product, if any, was recovered by the "capture wells."

10/27/08 Revision Comment 2 not addressed. The quantity of recovered product sent off-site for recovery or reuse is not provided.

12/09/08 Revision 3 Comment addressed.

21. Page 8, section 2.6.3, last paragraph. The statement that oil absorbent booms have been placed around the LNAPL discharging seeps to the St. Joe River must be revised to accurately note that only occasionally, within any given year, were small sausage-shaped containment booms placed in the river with minimal (or no) maintenance and/or recovery.

10/27/08 Revision 2 Comment partially addressed. Unless Potlatch can demonstrate otherwise, the 1st sentence must be revised to note that oil absorbent booms were only occasionally placed when sheen was observed.

12/09/08 Revision 3 Comment *not* addressed. The comment must also note that the oil absorbent booms were removed during winter months (see Cundy e-mail to Liverman dated 12/12/08 re Winter Removal of Booms at Avery Landing).

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23. Page 12, section 4.2. The media are discussed in terms of the type of contamination and concentrations relative to EPA and Idaho standards; however, other than the EPA 2007 removal assessment, the source of the data is not specified. Cite all data relied on to support the interpretation of media impacted.

10/27/08 Revision 2 Comment may be partially addressed. For example, limited reference to documents other than the 2007 E&E report are made to support interpretations of media impacted. Thus, the Respondent should revisit this section and ensure that all historical information including IDEQ, URS, and Hart Crowser are appropriately reflected in this section.

12/09/08 Revision 3 Comment addressed.

24. Page 12, section 4.2.1, 2nd sentence. The State of Idaho does not have promulgated "risk-based target levels for diesel and heavy oil petroleum hydrocarbons and polynucleated aromatic hydrocarbons (PAHs)." Rulemaking to establish standards and procedures for application of risk-based corrective action at petroleum release sites is undergoing public comment. Thus, the second sentence must be revised to accurately reflect the status of the proposed rule. Moreover, the target levels are guidance only and are for specific chemicals such as benzene and toluene, as opposed to diesel and heavy oil petroleum hydrocarbons and polynucleated aromatic hydrocarbons.

10/27/08 Revision 2 Comment not addressed. The subject sentence has not been deleted.

12/09/08 Revision 3 Comment addressed.

26. Page 12, Section 4.2.2, 1st paragraph, 10th sentence. Describe the data supporting the interpretation that the thickness of the floating product is overall thinner than that observed on the water table in Section 15.

10/27/08 Revision 2 Comment not addressed. The work plan fails to support the claim that the layer of free product on the Section 16 area is thinner compared to the Section 15 area. Also, the work plan continues to claim that MW-11, which still contains a large quantity of free product (at least since April 2007), is on FHA-owned property, which seems to be an important piece of evidence to support the claim that the Potlatch property is not as contaminated as the Bentcik or FHA property. It's not clear that this well is actually in the highway right-of-way, as no documentation or survey data has been offered. Furthermore, even if MW-11 is in the highway

right-of-way, it would still be on the Potlatch property, as right-of-way is not the same as ownership. As has been previously pointed out, this issue is irrelevant to the purpose of the EE/CA, but if it will persist in the work plan, then these claims regarding the ownership of MW-11, and how they relate to which properties contain more contamination, should be clarified.

12/09/08 Revision 3 Comment partially addressed. This issue is irrelevant to the purpose of the EE/CA. Regardless of the ownership issue of the land on which MW-11 is located, the purpose of a monitoring well is to provide information about groundwater conditions in the vicinity of the monitoring well, not solely inside the monitoring well itself. The fact that MW-11 still contains a large quantity of free product indicates that the groundwater in the vicinity of MW-11 also contains a large quantity of free product. There is not enough data to indicate that the free product plume stops at the border of the FHA right-of-way and doesn't extend into Potlatch property. Additionally, there are no monitoring wells located inside the free product plume on Potlatch property, so it is not clear how any definitive conclusions regarding the thickness of the free product layer can be made. If it will be an objective of the EE/CA to determine the relative amount of free product on each property, then the work plan should acknowledge the gaps in the existing data and indicate that a more conclusive assessment can only be made after additional data is obtained, including testing the new EPA monitoring wells and the installation and testing of new monitoring wells intended to specifically address this issue.

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27. Page 12, section 4.2.2, 2nd paragraph, 4th sentence. Revise this section with respect to the clarification provided below:

- During the 2007 removal assessment, START did not collect any groundwater samples underneath a floating LNAPL layer. Several of the new EPA monitoring wells (including EMW-02, EMW-04, EMW-5, and EMW-06) were installed within the free product area, a conclusion that was based on the observation of free product in the soil borings during monitoring well installation. However, when the groundwater samples were collected from these monitoring wells, no free product was detected or observed on the groundwater table, which was attributed to the fact that the free product in the area of the monitoring wells had been dispersed by the installation of the monitoring wells.

10/27/08 Revision 2 Comment not addressed. The work plan still contains the original language – the allegation or suggestion that E&E's groundwater samples were compromised because they were collected in groundwater monitoring wells below an LNPL layer. As was discussed during the conference call, the data is not compromised and the work plan must be revised accordingly.

12/09/08 Revision 3 Comment addressed.

29. Page 13, section 4.3, 1st paragraph. Delete this paragraph. It is premature to state that the main constituents of potential concern are diesel and heavy oil given that the source, nature, and extent of contamination and human health and ecological risks for the entire site have not been previously investigated (see Comment No. 2 above). In addition, the cited report, which contains the results of a study of natural background soil metals concentrations in Washington State, whereas, there are other more relevant documents which must be considered, including those related to the many and varied studies occurring in the Coeur d'Alene Basin such as the *Final Technical Memorandum (Rev. 3): Estimated Background Concentrations in Soil, Sediment, and Surface Water in the Coeur d'Alene and Spokane River Basins* (URS Greiner and CH2M Hill, 2001). Moreover, the referenced information must be supported by site-specific data yet to be collected to demonstrate that metals found on-site are typical of the immediate area before rejecting as soil COPCs.

10/27/08 Revision 2 Comment not addressed. The 1st sentence must be revised to reflect that it is not known whether any COPCs or other contaminants are present at the western portion of the Site.

12/09/08 Revision 3 Comment addressed.

30. Page 13, section 4.3, 4th paragraph. The discussion of PCB in groundwater should also include the Idaho risk-based level of 0.0279 ug/L for PCBs (one groundwater sample contained Aroclor 1260 at a concentration of 0.028 J ug/L).

10/27/08 Revision 2 Comment not addressed. It is not clear how the Respondent can elect to use risk-based target levels for soil, but ignore risk-based target levels for groundwater.

12/09/08 Revision 3 Comment addressed.

31. Page 13, section 4.3, 5th paragraph. Clarify the statement regarding the questionable validity of the arsenic groundwater data.

10/27/08 Revision 2 Comment not addressed. As noted in Comment No. 27 above, water quality monitoring data was provided to the Respondent. Thus, it is now known whether the metal concentrations (particularly arsenic) are questionable with respect to turbidity levels and the subject paragraph can be revised to reflect this information.

12/09/08 Revision 3 Comment addressed.

34. Page 16, section 4.5.3. Present the data on which the following statement is made "The greatest thickness and quantities of free product LNAPL today, and in the past, were in areas within the Bentcik-owned and Federal Highway Administration-owned property and may have migrated and spread along with groundwater flow to impact the water table within the Potlatch-owned property."

10/27/08 Revision 2 Comment not addressed. See Comment No. 26 above.

12/09/08 Revision 3 Comment not addressed. See Comment No. 26 above.

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35. Page 16, section 4.5.3. Clarify the following statement "According to the EPA START-3 Report, the size of the floating free product LNAPL appears to have increased in aerial extent from 2000 to 2007, but the location of the new EPA borings and monitoring wells in areas not previously investigated may account for some of the apparent increase."

10/27/08 Revision Comment 2 not addressed. Potlatch supposedly excavated test trenches around the area of contamination, and the extent of the free product plume was estimated based on observations from these test trenches (see Figure 4-2 of the work plan). In April 2007, EPA START-3 found evidence that the plume extended outside this boundary. Thus, either the plume has moved, or the Potlatch investigation techniques were insufficient to identify the correct extent. If the plume has not moved since the previous Potlatch investigation, then the previous estimates should not have been offered as an accurate extent of the free product plume, and the work plan should be revised accordingly.

12/09/08 Revision 3 Comment addressed.

38. Page 17, section 4.6, 1st paragraph. As noted in section 3.4.1 of the work plan, the fill materials extend 18 feet below ground surface (BGS). Given that groundwater is approximately 10 to 16 feet BGS, the free phase product is in the fill material, unless the depth of the native soils varies over the site. Because the soil type will have a significant affect on the migration and recoverability of free product in the subsurface, a thorough characterization of the fill itself, and the location of the interface between the fill and the native soils, must also be investigated.

New Comment. This section must be revised to reflect data needs for the western portion of the Site.

12/09/08 Revision 3 Comment addressed.

44. Page 20, section 5.3. The discussion of proposed field investigations must be revised to reflect prior work plan comments and to include sediment sampling as shown by Figure 5-1.

10/27/08 Revision 2 Comment partially addressed. This section has not been revised to include sediment sampling.

New comment. The four proposed soil sampling locations are biased to historical main rail line and spur rail lines railroad at the far western end of the Site. However, when comparing Figure 4-1 with Figure 5-1, the proposed soil sampling locations will not address the Site in proximity of the historic turntable south toward the St. Joe River and west/southwest toward the western end of the Site. Given the historic use of this area including turntable-related tracks and many unknown structures evidenced by Figure 4-1, several additional soil sampling locations must be added to the proposed activity (perhaps as many as four to six additional soil samples).

12/09/08 Revision 3 Comment addressed.

New comment re Section 5.3.2 (Additional Monitoring Well Installation. An additional groundwater monitoring well is recommended to be installed north of DW-01 for reasons similar to those discussed in the preceding new comment.

12/09/08 Revision 3 Comment addressed.

45. Page 22, section 5.3.3, 1st paragraph, 5th bullet statement. Please note that ESB-03 was a soil boring and not a groundwater monitoring well.

10/27/08 Revision 2 Comment addressed; however, please indicate MW-11, EW-3, and EW-4 on Figure 5.

12/09/08 Revision 3 Comment addressed.

48. Page 24, section 6.0, *Evaluation*. Revise this section to include treatability testing.

10/27/08 Revision 2 Comment not addressed. This section was not revised to include treatability testing.

12/09/08 Revision 3 Comment addressed.

51. Figure 7-1. Revise the schedule and listed tasks to include all significant project deliverables such as the EE/CA sampling and analysis plan, biological assessment work plan, and cultural resources work plan. In addition, please note that the plan and report submittals are not required by Ecology.

10/27/08 Revision 2 Comment partially addressed. Schedule does not include preparation of a draft treatability study work plan. In addition, schedule should include submission of a technical memorandum discussing the proposed removal action alternatives to be evaluated based on effectiveness, implementability, and cost.

12/09/08 Revision 3 Comment *partially* addressed. This schedule now includes the preparation of a draft treatability study work plan; however, the schedule does not include submission of a technical memorandum discussing proposed removal action alternatives.